June 1956

MONTHLY REVIEW

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FEDERAL RESERVE BANK
OF KANSAS CITY

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Interest Rates

On Business Loans

INTEREST RATE LEVELS have risen in the postwar decade, reflecting enlarged demands for credit pressing against a limited supply of funds. The general upward movement in the cost of credit has been evident in such widely publicized data as the rate of interest on Treasury bills, yields on longer-term Government securities, and the prime rate of interest –the rate charged by banks to business borrowers of highest credit rating.

Detailed statistics on changes in the level and structure of bank rates, however, have not been readily available. This information is highly important to economic analysts for such purposes as appraising the effects of credit policy on the cost of bank credit to various classes of borrowers. It also may be of use to individual bankers who are interested in comparing rates of interest charged their own customers with prevailing rates at other commercial banks.

To obtain these and other related data regarding commercial bank lending to businesses, the Federal Reserve System, in cooperation with member banks, conducted a sample survey of business loans outstanding at member banks on October 5, 1955. A report on shifts in business use of bank credit, based on the survey, was published in the May issue of the *Review*. In this article, attention will be given to the level and structure of interest rates on business loans in the Tenth Federal Reserve District.

The 1955 business loan survey revealed an average interest rate of 4.7 per cent for all business loans outstanding at Tenth District member banks, about 1 percentage point higher than the rate indicated by a similar survey in 1946. Rates charged by District member banks were 0.5 percentage points above the national average. This difference apparently is related partly to the fact that loans to small businesses comprise a large part of total loans at District banks. Loans to service, construction, and retail trade firms—small businesses paying higher-than-average interest rates both in the District and across the Nation—constituted almost one third of total loans outstanding in the District. In the Nation as a whole, these loans amounted to about one fifth of the total. The average loan at District member banks was about two thirds the size of the national average. Since 1946, the margin between average interest rates in the District and in the Nation has narrowed by 0.2 percentage points.

Rate increases in the District apparently have been felt most heavily by large businesses borrowing at large banks. While the average interest rate rose from 2.8 to 4.2 per

cent at banks with deposits in excess of $100 million, the average rate at banks with deposits of less than $2 million increased from 6.1 to 6.9 per cent. And at banks with deposits of $100 million and over, businesses with assets of more than $5 million paid an average rate of 3.6 per cent in 1955, in contrast to 1.9 per cent in 1946; at the same time, the average rate to the smallest businesses—those with assets under $50,000—rose from 5.0 to 5.6 per cent.

The tendency towards equalization of interest rates within the District undoubtedly reflects the operation of forces similar to those narrowing the margin between District and national average interest rates. The secular growth of a nationwide credit market may be partly responsible for the reduction in interest rate differentials. The data suggest, however, that during the postwar decade, greater short-run flexibility of rates paid by large businesses borrowing at large banks significantly reduced the variation of interest rates around the average paid by all borrowers.

Table 1. AVERAGE INTEREST RATE AND AVERAGE SIZE OF LOAN FOR SELECTED BANK SIZES BY SIZE OF BORROWER

Business Size (Total Assets)	Size of Bank (Total Deposits)			
	$250-$500 million	$100-$250 million	$50-$100 million	All banks over $50 million
	Average interest rate			
$100 million and over	2.9	3.4	3.0	3.0
$25-$100 million	3.4	3.7	3.2	3.5
$5-$25 million	3.8	4.0	4.1	3.9
$1-$5 million	4.0	4.4	4.4	4.2
$250,000 to $1 million	4.4	4.7	4.8	4.6
$50,000-$250,000	4.6	5.0	5.1	4.9
Under $50,000	5.9	5.5	7.4	6.2
	Average size of original amount of loan			
$100 million and over	$664,300	$297,900	$147,400	$368,300
$25-$100 million	662,000	149,700	167,000	302,400
$5-$25 million	456,500	255,200	140,900	296,500
$1-$5 million	310,000	130,300	90,800	164,000
$250,000 to $1 million	97,200	51,500	38,800	54,300
$50,000-$250,000	37,300	18,600	12,100	19,200
Under $50,000	7,000	8,500	2,600	4,800

Interest Rates by Size of Borrower

When loans are classified according to size of the borrower, as measured by total assets, it is found that more favorable terms are obtained by larger borrowers. For the District, reliable estimates are available showing average interest rates paid by different size borrowers at banks with total deposits in excess of $50 million. In each of the three bank size classes in this category, average interest rates progress from low to high as the size of the borrower decreases. A variation of 3.2 percentage points is created between the average rate paid by the largest and smallest business size groups borrowing at these banks. For all District member banks, the spread probably would be somewhat larger.

That large businesses obtain more favorable loan rates than smaller businesses is not surprising, since business size is one of the more important measures of a borrower's credit standing. The size of a business, however, also tends to be related to its competitive position in the market for loanable funds. Large borrowers often have access to public markets for funds through the issuance of securities, including open-market paper in some cases, and to a geographically wider distribution of banks. Size of borrower also is associated with average size of the loan; large firms borrow in substantially larger amounts than do smaller firms. As the size of the loan increases, transactions costs per dollar of credit extended are reduced, enabling the lending bank to reduce its interest charges to the borrower.

Rates Paid by Different Businesses

Rather moderate differences exist between average interest rates paid by various industrial groups. At the high end of the scale,

service firms pay an average rate of 5.5 per cent. At the other extreme, textile, apparel, and leather manufacturers are charged an average rate of 3.5 per cent, or 2 percentage points less. The unusually low rate paid by textile, apparel, and leather manufacturers—0.5 percentage points below the next lowest rate—has limited significance, however, since credit extended to these firms comprises only 1 per cent of the outstanding volume of business loans. The 1.5 percentage point difference between rates paid by sales finance companies and by service firms is a more representative measure of interest rate variation by business of borrower.

The structure of interest rates among the various industrial groups in the District closely parallels the national picture. Manufacturing firms—relatively large and usually well-established concerns—borrow more cheaply than those in the trade and other categories, both in the District and the Nation. Of the firms in the nonmanufacturing classes, sales finance companies, commodity dealers, and real estate firms borrow at lower-than-average rates. Retail trade, construction, and service firms, in that order, complete the high end of the rate structure in the District and the Nation.

The nature of the business in which the borrower engages is not entirely responsible for these rate differentials. Thus, the service, construction, and retail trade groups, which pay relatively high rates of interest, are dominated by small firms borrowing in small amounts, and interest rates on these loans are likely to be higher than average regardless of the industrial grouping. Similarly, low rates paid by textile, apparel, and leather manufacturers, sales finance companies, and food, liquor, and tobacco manufacturers partly reflect the scale of operations and large credit needs of the majority of firms in these classes.

Table 2. AVERAGE INTEREST RATE AND AVERAGE SIZE OF LOAN BY BUSINESS OF BORROWER

Business of Borrower	Average Interest Rate	Average Size of Original Amount of Loan
Manufacturing and mining:		
Food, liquor, and tobacco	4.0	$32,800
Textiles, apparel, and leather	3.5	26,700
Metals and metal products	4.5	29,100
Petroleum, coal, chemicals, and rubber	4.7	45,500
All other	4.7	17,700
Trade:		
Wholesale	4.6	25,300
Retail	5.1	8,600
Other:		
Commodity dealers	4.3	44,000
Sales finance companies	4.0	101,000
Transportation, communication, and other public utilities	4.5	26,000
Construction	5.1	16,700
Real estate	4.3	46,100
Service firms	5.5	7,400
Other nonfinancial	4.7	13,400

The spread among the average rates of interest paid by different businesses is somewhat larger for long-term loans—loans with a maturity of over one year—than for short-term loans. Average interest rates on short-term loans to the various industrial classes range from 3.4 per cent to 5.1 per cent, a spread of 1.7 percentage points, while on loans of over one year the range of variation is 1.9 percentage points. Industrial groups obtaining favorable rates on short-term loans in some instances pay rather high rates on longer-term borrowing. Food, liquor, and tobacco manufacturers, for example, were found at the time of the survey to pay lower-than-average rates on short-term loans, but higher-than-average rates on loans of over one year.

Rates to Corporations and Unincorporated Businesses

Corporations usually borrow on more favorable terms than unincorporated enterprises. For the Tenth District as a whole, the difference between the average rates of interest paid by these two classes of borrowers is

1.3 percentage points. Lower rates to corporate borrowers characterize all bank size groups, but the margin of advantage held by corporations is less pronounced at larger banks in the District.

Lower interest charges to corporate borrowers are partly explained by the tendency to incorporate as firms expand and become well established in the market. Loans to established firms, of course, minimize the risk of the lending institution. Corporations also may have a more favorable competitive position in the market for bank credit, because of the ability to draw more readily upon other sources of loanable funds. When rates paid by borrowers of comparable size are considered, the margin between rates paid by corporations and unincorporated businesses narrows considerably, as is indicated in Table 4, although it appears that form of business organization of the borrower is related independently to the cost of credit.

The Association Between Bank Size and Interest Rates

Interest rates vary appreciably among banks of different size classes, with the largest District banks lending at an average rate of 4.0 per cent, and the smallest banks at an average rate of 6.9 per cent. A regular progression from lower to higher rates is observed in moving from larger to smaller bank classes. These rate differentials exist for both long- and short-term loans, although the margins are somewhat larger for loans of longer maturity.

AVERAGE INTEREST RATE BY BANK SIZE

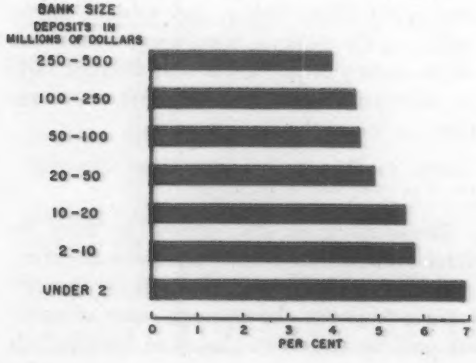


Table 3. AVERAGE INTEREST RATE BY BANK SIZE AND FORM OF BUSINESS ORGANIZATION

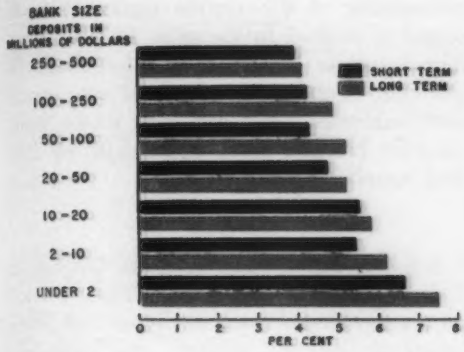
Bank Size (Total Deposits)	Form of Business	
	Incorporated	Unincorporated
$250-$500 million	3.8	4.6
$100-$250 million	4.3	5.0
$50-$100 million	4.4	5.2
$20-$50 million	4.7	5.2
$10-$20 million	4.8	6.2
$2-$10 million	4.7	6.1
Under $2 million	5.7	7.0
All bank sizes	4.2	5.5

Table 4. AVERAGE INTEREST RATE BY FORM OF BUSINESS ORGANIZATION AND SIZE OF BORROWER
(At banks with over $50 million in deposits)

Business Size (Total Assets)	Form of Business	
	Incorporated	Unincorporated
$5-$25 million	3.9	4.2
$1-$5 million	4.2	4.5
$250,000 to $1 million	4.6	4.7
$50,000-$250,000	4.7	5.2
Under $50,000	5.6	6.6

In accounting for the spread between rates charged by banks of different sizes, it may be noted that most loans made by smaller banks are to small businesses which borrow in relatively small quantities. Thus, at banks with deposits of less than $2 million, the average size loan is about $3,000, in comparison with $132,000 at banks in the largest size class. When average interest rates to borrowers of comparable size are contrasted, as in Tables 1 and 4 above, it is found that businesses of similar size do not always borrow on more favorable terms at larger banks. Businesses with assets of $25-$100 million, for example,

AVERAGE INTEREST RATE BY MATURITY AND BANK SIZE



borrow at lower average rates from banks with deposits of $50-$100 million than from banks in the two larger size classes, as shown in Table 1. There is a tendency, nevertheless, for higher average interest rates to be associated with smaller bank size even for borrowers of similar size, although it seems clear that bank size is less strategic in its effect on the structure of interest rates than is the size of the borrower.

Rates on Long- and Short-Term Loans

For the District as a whole, average interest rates on long-term loans—loans with a maturity of over one year—are 0.6 percentage points higher than average rates on short-term loans. Higher rates on loans of longer maturity characterize all bank size classes, although the spread between long- and short-term rates varies somewhat from one bank size group to the next. The margin between long- and short-term interest rates displayed in the accompanying chart may to some extent understate the true effect of maturity on the interest rate structure, however. Some of the long-term loans outstanding on October 5, 1955, were probably negotiated in periods when lower interest rates prevailed, while short-term loans outstanding as of that date more clearly reflected the rising trend of interest rates during 1955. Therefore, on new loans contracted around the October 5 survey date, the margin between long- and short-term interest rates would be somewhat larger than indicated by survey estimates.

Table 5. AVERAGE INTEREST RATE ON LONG- AND SHORT-TERM LOANS BY SIZE OF BORROWER FOR SELECTED BANK SIZES

Business Size (Total Assets)	Size of Bank (Total Deposits)							
	$250-$500 million		$100-$250 million		$50-$100 million		All Banks over $50 million	
	Average Interest Rate							
	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term
$100 million and over	3.1	2.6	3.6	2.9	3.1	2.9	3.2	2.7
$25-$100 million	3.4	3.7	3.8	3.3	3.2	3.4	3.5	3.6
$5-$25 million	3.7	4.1	3.8	4.5	3.6	6.7	3.7	4.4
$1-$5 million	4.0	4.3	4.1	4.9	4.2	4.7	4.0	4.6
$250,000 to $1 million	4.3	4.5	4.6	4.8	4.7	5.0	4.5	4.8
$50,000-$250,000	4.6	4.7	4.7	5.5	4.9	5.6	4.7	5.2
Under $50,000	4.6	7.0	5.0	6.0	5.2	9.9	5.0	7.4
All business sizes	3.9	4.1	4.2	4.9	4.3	5.2	4.1	4.6

In Table 5, a comparison is made of average interest rates paid on long- and short-term loans by businesses of comparable size. This comparison reveals that, in general, businesses of similar size pay relatively higher rates on long-term loans. An exception to this rule occurs in the very largest business size group. In all three bank sizes for which the data in Table 5 were tabulated, businesses with assets of over $100 million paid a lower average interest rate on long-term than on short-term loans. Possibly this reflects the fact that the long-term loans were contracted when interest rates generally were lower. It is also interesting that for the smallest business size group the cost of long-term borrowing is substantially higher than for short-term loans—as much as 4.7 percentage points higher at banks with deposits of $50-$100 million.

Coverage of the Survey

Interest rate data presented in this article represent estimates for all Tenth District member banks. These estimates were derived from sample information on the basis of well-established statistical procedures. A total of 141 District member banks cooperated in the survey, including 100 per cent of all those with total deposits over $20 million and 13 per cent of the remaining member banks. Approximately one fourth of the number of loans outstanding at the sample banks were selected at random for inclusion in the survey. These sample banks account for about 85 per cent of the total volume of commercial and industrial loans and real estate loans used for business purposes extended by District member banks.

Summary

Business loans outstanding on October 5, 1955, at Tenth District member banks carried an average interest rate of 4.7 per cent. Variations around this average are partly explained by the size of the borrower, the nature of the business activity in which the borrower engages, the form of business organization of the borrower, the size of the lending bank, and the maturity of the loan. Among these variables, the size of the borrower is of chief importance in explaining interest rate variations, although each variable appears to be related to the cost of bank credit. Interest rates have risen since 1946, with the largest increases recorded on the low end of the interest rate structure, so that the variation of interest rates around the District average has been reduced.

Development and Financing of IRRIGATION

THE IMPORTANCE of irrigation in this region is changing. The 1954 Census of Agriculture reveals some new and interesting statistics on irrigation farming in the Tenth Federal Reserve District. In two previous census years—1939 and 1949—increases in irrigated acreage were indicated. However, the 1954 census data indicate that irrigated acreage decreased in the District between 1949 and 1954 by 323,102 acres. This does not necessarily mean that established irrigation systems are being abandoned or that they have proven unsuccessful. The decrease in irrigated acreage occurred in the older irrigated areas of Colorado, New Mexico, and Wyoming. Irrigated acreage increased substantially in Kansas, Missouri, Nebraska, and Oklahoma. Several facts of irrigation farming are evident from the census data and are important from the standpoint of growth and development of irrigation in the District. The census data also reveal the importance of sound financing of irrigation enterprises.

Irrigated Acreage Declined

Total irrigated acreage in the District in 1954 was 5,222,317 acres as compared with 5,545,419 acres in 1949. Acreage in the three mountain states declined by a net of 887,959 acres, but this decrease was partly offset by an increase of 564,857 acres in the remainder of the District.

Nineteen counties in the District showed an increase in acreage under irrigation from 1949 to 1954 of more than 10,000 acres per county. Farmers of Dawson County in south central Nebraska reported an increase of 34,346 acres, the largest county increase in the District, which brought the ratio of irrigated acreage to total cropland in that county to 36.2 per cent. If it can be assumed that all irrigated land is in cropland, then more than one third of the cropland in that county has now been brought under irrigation. This is not necessarily the typical situation, but it illustrates the growth and development of irrigation in some areas of the District.

Reports of 22 counties showed increases in irrigation of between 5,000 and 10,000 acres, and 79 counties reported increases between 1,000 and 5,000 acres. Only six counties in the District reported no irrigated acreage in 1954.

IRRIGATED ACREAGE IN THE TENTH DISTRICT

Area	1949	1954	Net Change
Colorado	2,872,348	2,202,921	–669,427
Kansas	138,686	331,551	192,865
Missouri*	220	3,643	3,423
Nebraska	876,259	1,171,623	295,364
New Mexico*	192,939	144,467	–48,472
Oklahoma*	33,775	106,980	73,205
Wyoming	1,431,192	1,261,132	–170,060
Total of Tenth District	5,545,419	5,222,317	–323,102

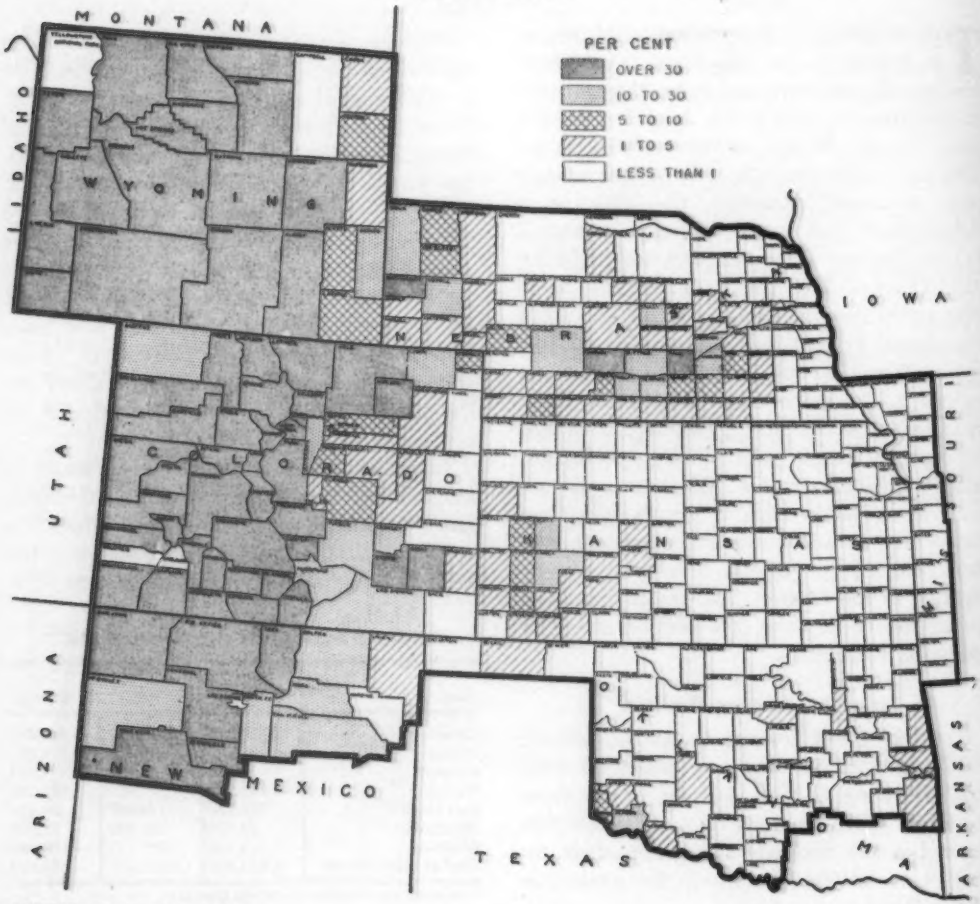
* Includes only acreage in Tenth District.
SOURCE: Census of Agriculture.

Even though the total acreage of irrigated land in 1954 was smaller than in 1949, irrigation is expanding rapidly in parts of the Tenth District. Most of the land brought under irrigation between 1949 and 1954 was in eastern Colorado, western Kansas, central Nebraska, western Oklahoma, and northwest Wyoming. Improvements in pumping underground water have accounted for much of the increase in irrigated acreage since 1949.

The decline in irrigated acreage from 1949 to 1954 reported in some areas of the District probably is related to the source of irrigation water. Acres removed in these areas

PERCENTAGE OF IRRIGATED ACREAGE TO TOTAL CROPLAND IN EACH COUNTY, 1954

Tenth District



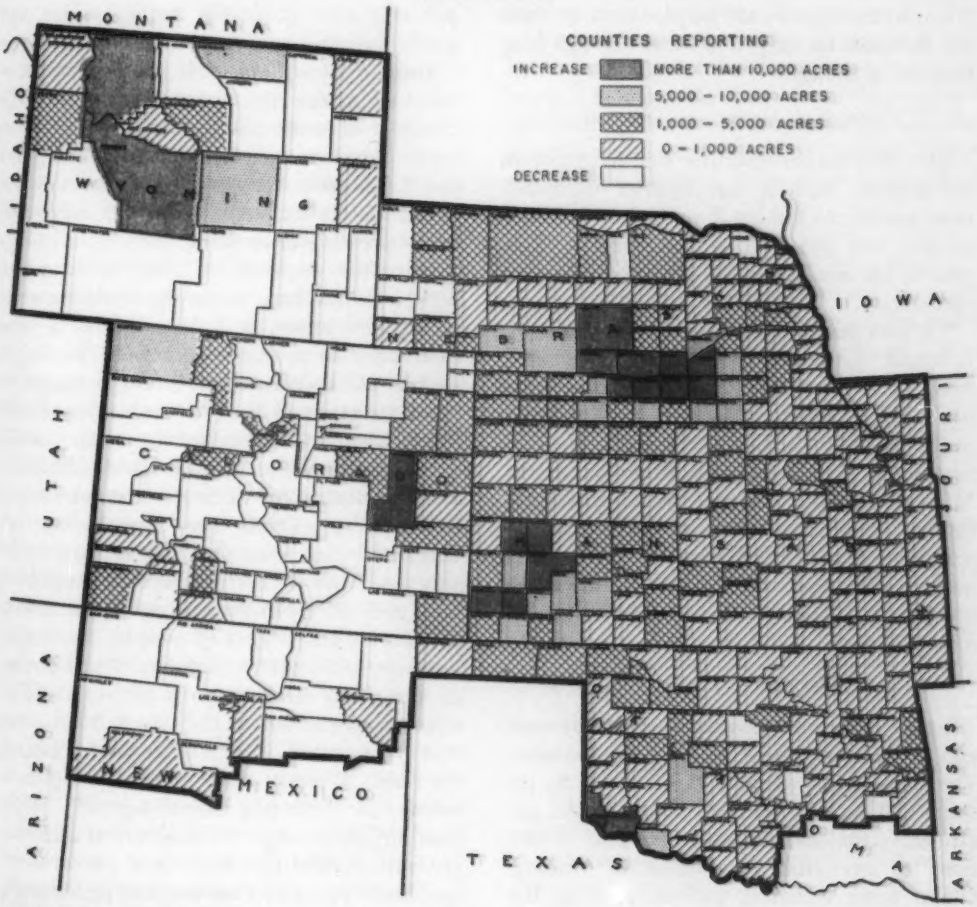
SOURCE: Census of Agriculture.

probably have not been permanently taken out of irrigation farming. Colorado, New Mexico, and Wyoming receive less than 20 inches of average annual precipitation. Only small areas of these states receive as much as 30 inches of rainfall and some areas even have less than 10 inches of annual rainfall.

These states depend primarily upon surface water stored in reservoirs for irrigation. Because the snow pack has been below average in recent years, the quantity of water has been inadequate. The severe drought of recent years has had an adverse effect upon irrigation farming in the western section of

CHANGE IN IRRIGATED ACREAGE, 1949-1954

Tenth District



SOURCE: Census of Agriculture.

the Tenth District. Land that normally is irrigated was removed in the drought years because of lack of irrigation water. The large number of counties in the western section of the District showing a decrease in irrigated acreage points out the effect of drought upon irrigation farming. The variability of crop production is not entirely eliminated by irrigation farming. Weather conditions are still responsible for variability in crop production when water supplies are not adequate to meet the demands for irrigation water through long periods of drought.

Increased Financing Required

The 1954 census indicates that irrigation in the eastern half of the District expanded more rapidly in the last 5 years than in either of the two previous 5-year periods. This growth has resulted in the need for increased financing.

Farmers adopting a system of irrigation are primarily concerned with its financial success. Likewise, financial institutions supplying funds to irrigation farmers are interested in the possibility of financial success. The current rapid development of irrigation in the Midwest is some evidence that farmers are finding conditions favorable for shifting to irrigation farming. Both farmers and lenders need to study the costs and possibilities of returns before investments in irrigation equipment are made.

Irrigation Increases Production Costs

Irrigation farming involves additional costs and capital investments in the farm business. The question is whether the increase in returns will be large enough to justify the additional costs and investments. This is the same as any other investment in farming. Other, more technical aspects, such as the availability of a reliable source of water, topography, and soil conditions, must also be considered. However, this discussion will be confined to the financing of irrigation operations. In addition to increased costs for applying the water on the land, irrigation requires an increase in expenditures for other materials. For example, the nitrogen balance is thrown out of adjustment by adding more water and more commercial fertilizers must be purchased. The amount of labor required per crop-acre is usually higher under irrigation farming and increases costs per acre.

Irrigation costs will vary with several factors such as the type of irrigation system, the quantity of water applied, soil type, topography, kind of crop grown, etc. The costs can be divided into two types—the original investment in irrigation, and costs associated with operating the system.

Once the decision to invest in irrigation equipment has been made, the annual interest on the investment and depreciation become fixed costs to the farm business. The implications of these fixed costs are apparent to many irrigators in the western section of the Tenth District where irrigated acreage showed a decline in 1954. Investments in ditching, leveling, and water diversion systems remain in the farm business even though they are temporarily not being used because of a water shortage. They do not represent out-of-pocket costs and the operator may not be as aware of them as other types of expense. Nevertheless, they are a part of the costs of production of the farm in that particular year. The effect is a reduction in the returns from acres that are irrigated or from other production on the farm. A recent study made by the University of Nebraska, involving 283 wells pumping an average of 110 acre-feet of water per well, showed that fixed costs, on the average, made up more than one half of the costs per acre-foot of water pumped.

Operating costs vary with factors affecting the daily operation of irrigation equipment which include the amount of lift, the type of power, kind of fuel, the amount of water applied, and the number of acres irrigated. Such costs as labor, fertilizer, fuel, repairs, maintenance, harvesting, and marketing costs can be avoided if the irrigation equipment is not used in a particular year.

Irrigation Returns Must Be High

If higher costs per acre are incurred in producing agricultural products, it is essential to obtain higher returns per acre to cover the additional expenses. Higher returns under irrigation can be expected because yields per acre are higher than those obtained under dry land farming. Crops produced under irrigation are those which generally yield high returns. Except for crops found in specialized areas—such as potatoes, sugar beets, fruits, and vegetables—most of the irrigated crops in the Tenth District fall within the feed category. Most of them must be converted to livestock products through feeding operations. Thus, returns from irrigation farming are closely dependent upon what is happening to total feed production and the livestock economy. Prices of both feed crops and livestock determine whether the value of the larger yields per acre will produce enough income to offset the higher costs of production. The possibility of these higher returns, as well as the increased stability of income, has added impetus to the development of irrigation.

Two Types of Capital Needed

Both long-term and short-term credit frequently are required to provide the capital needed in irrigation farming. Long-term credit is required to finance the original outlay for the irrigation system. This is generally the largest amount and is probably the most difficult to obtain. Since this is a long-time investment which remains a part of the farm when sold, some type of real estate loan usually is most effective in meeting this credit need. Short-term credit also is needed to finance additional production expenses such as power, fertilizer, labor, supplies, and additional harvesting and marketing costs. Both the farmer and the financing institution should realize that both types of credit are needed when irrigation is introduced. The additional investment in the system itself will be of little value unless adequate short-term capital is available to operate the system efficiently. Short-term requirements are frequently substantial as they represent almost one half of the total annual cost of irrigation operations.

Several Sources of Credit Available

The major sources of farm credit are commercial banks, insurance companies, the Farm Credit Administration, the Farmers' Home Administration, individuals, and merchants. All these agencies provide a source of credit for establishing and operating irrigation systems. Some have been more active than others in extending credit for irrigation because of their institutional arrangements and regulations concerning their lending activities. The methods and procedures for extending credit vary, depending on the individual or firm extending the credit, on the purpose for which credit is being extended, and in some instances on the laws.

Long-Term Loans Provided by Many Agencies

If credit is required for establishing an irrigation system, long-term credit usually is sought because the amount of credit needed frequently is large and usually cannot be repaid in a year or two. Long-term credit in ag-

riculture usually is secured by farm real estate. The major institutional sources of this type of credit are life insurance companies, commercial banks, Federal Land Banks, and the Farmers' Home Administration.

Individuals also frequently provide real estate credit. Practices followed by these individuals vary widely, depending on the creditor and his relationship to the individual seeking credit. These same variations exist if real estate credit is being sought for financing irrigation systems.

Life insurance companies have been active in making farm real estate loans to finance irrigation. The individual farm usually is studied carefully by the insurance company before making a loan. If the company decides to make the loan on the basis of its study, the loan will usually be amortized over a 15- to 20-year period. Most insurance companies, in addition to taking a mortgage on the land, also take a mortgage on the specialized irrigation equipment. Interest rates are generally the same as those charged for other real estate credit.

Commercial banks, because of the source of their loanable funds, nature of their operations, and laws which limit the kind and amount of their farm mortgage loans, have not been as active as some other agencies in extending large, long-term loans for irrigation equipment. Commercial banks have found in many cases that they can best serve the needs of their communities if they limit the number of farm real estate loans. In some areas, banks finance irrigation equipment on a limited scale for periods up to five years. Commercial banks must conform to regulations of national and state authorities in making loans for irrigation as well as for other real estate. Even though these restrictions impose certain limitations on commercial banks, especially small banks in agricultural communities, a considerable volume of funds can be made available by commercial banks in meeting the financial needs of a community for development of irrigation. In many instances, commercial banks may assist farmers in locating other sources of credit.

The Federal Land Banks have made farm real estate loans for irrigation through the farm loan associations. Whether such credit is extended is determined largely by recommendations of the secretary and members of the board of the individual loan associations. Again, the methods and procedures used closely follow those of the life insurance companies and commercial banks.

The Secretary of Agriculture also is authorized to make either direct or insured loans for financing soil and water conservation projects under certain specified conditions. The loans at present are made through the Farmers' Home Administration and can be made for financing irrigation. Loans are scheduled for repayment within the shortest time consistent with the borrower's ability to repay. In no case will the repayment period on loans to individuals exceed 20 years. Borrowers are required to finance the unpaid balance of the loan when able to obtain a loan at reasonable rates from other sources.

Short-Term Credit Extended Chiefly by Banks

Once the irrigation system itself has been financed, it is necessary to meet the additional short-term credit requirements of irrigation farming. The principal lending institutions that provide short-term credit to farmers are commercial banks, Production Credit Associations, the Farmers' Home Administration, individuals, and merchants.

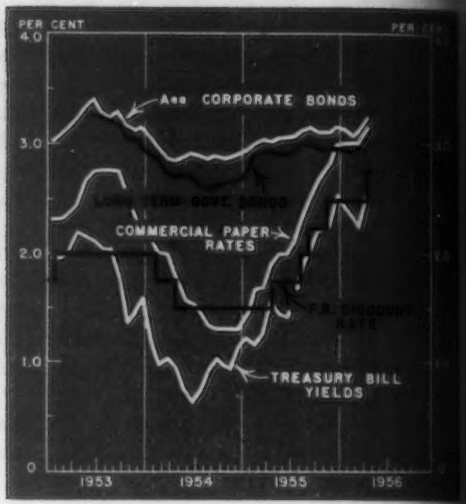
Commercial banks are the main source of nonreal-estate credit. They account for approximately three fourths of the nonreal-estate

loans made to agriculture by principal lending agencies. The methods and procedures used by commercial banks to finance additional short-term credit requirements that can be attributed to irrigation farming are similar to those used for financing other nonreal-estate loans. Banks are more willing to secure a loan by chattel mortgage on irrigated crops than on nonirrigated crops. The increased productivity and stability that is introduced into the farm business, if a feasible irrigation system has been developed, makes loans on crop production more secure. Commercial bankers in irrigated areas should find such loans highly desirable if the individual is a good credit risk, understands irrigation, and practices good management.

The Production Credit Associations also extend short-term credit to irrigation farmers. The requirements for extending this type of credit are similar to those for making other farm loans. The rules applicable to short-term loans made by the Farmers' Home Administration are quite similar to those discussed previously for long-term loans made by this agency. Individual and merchant credit to farmers to meet short-term needs are often made up of open accounts with business firms which are paid monthly or at the end of the production season.

DISPOSABLE PERSONAL INCOME AND RETAIL SALES

MONEY RATES AND BOND YIELDS



BANKING IN THE TENTH DISTRICT

District and States	Loans				Deposits			
	Reserve City Member Banks		Country Member Banks		Reserve City Member Banks		Country Member Banks	
	April 1956 Percentage Change From							
	Mar. 1956	Apr. 1955	Mar. 1956	Apr. 1955	Mar. 1956	Apr. 1955	Mar. 1956	Apr. 1955
Tenth F. R. Dist.	+1	+16	−4	+10	+2	−2	+1	0
Colorado	+1	+20	−1	+10	+1	0	+1	−3
Kansas	0	+16	−13	+11	+4	−2	0	−2
Missouri*	−1	+12	−2	+6	+4	−5	+1	+1
Nebraska	−1	+12	−4	+1	−2	−3	+1	−4
New Mexico*	**	**	+1	+22	**	**	0	+6
Oklahoma*	+3	+19	0	+14	+2	+1	0	+3
Wyoming	**	**	+1	+7	**	**	+4	+1

*Tenth District portion only. **No reserve cities in this state.

PRICE INDEXES, UNITED STATES

Index	Apr. 1956	Mar. 1956	Apr. 1955
Consumer Price Index (1947-49=100)	114.9	114.7	114.2
Wholesale Price Index (1947-49=100)	113.7	112.8	110.5
Prices Rec'd by Farmers (1910-14=100)	233	230	247
Prices Paid by Farmers (1910-14=100)	284	282	284

TENTH DISTRICT BUSINESS INDICATORS

District and Principal Metropolitan Areas	Value of Check Payments		Value of Department Store Sales		*Value of Residential Building Permits	
	Percentage change—1956 from 1955					
	Apr.	Year to date	Apr.	Year to date	Apr.	Year to date
Tenth F. R. Dist.	+7	+7	−9	+1	−40	−33
Denver	+11	+10	−4	+8	−56	−49
Wichita	0	−4	−12	−2	−53	−43
Kansas City	+7	+6	−16†	−5†	−46‡	−29‡
Omaha	+2	+1	−12	−3	+17	+6
Okla. City	+11	+7	−4	+5	−56	−43
Tulsa	+13	+15	−4	+3	−45	−28

*City only. †Kansas City, Mo., only. ‡Kansas City, Mo., and Kan.